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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,894	03/31/2004	Stephen H. Tang	INTEL-0056	4982

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EXAMINER	
PHAN, TRONG Q	
ART UNIT	PAPER NUMBER
2827	

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/812,894	TANG ET AL.	
	Examiner	Art Unit	
	TRONG PHAN	2827	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the forward body bias as recited in claims 1, 4, 9, 17-20, 23, 26, 28 and 32; the NMOS transistor having a source coupled to GROUND as recited in claim 12 and the drain of the NMOS transistor is coupled to a body of each of the two transistors as recited in claim 13 (it should be noted that NMOS transistor 340 only has a source coupled to a body of each of transistors 302 and 312 and a drain coupled to GROUND as described in lines 14-20, page 8) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 9-11, 13,16-18, 24-26, 29, 33 and 36-37 are objected to because of the following informalities:

In claims 9, 13,16-17, 24-26, 29 and 36-37, no antecedent basis for "the two transistors"; the connective relationship of the two transistors should be provided.

In claims 10-11 and 18 (last line), no antecedent basis for "the mode".

In claim 33, no antecedent basis for "supply voltage".

Appropriate correction is required.

Specification

3. The disclosure is objected to because of the following informalities:

Further explanation should be provided to describe how the signal line 345 in STANDBY mode turning ON transistor 340 can apply the forward body bias to both transistors 302 and 312 in Fig. 5 of the present invention as described in lines 19-22, page 8 and lines 3-7, page 9 of the specification. Since the n-well of PMOS transistors 302 and 312 are shorted DOWN to GROUND when transistor 340 is ON as described in lines 14-17, page 9 of the specification.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-37 are, insofar as understood, rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumura et al., 5,365,475, in view of Oliver, 4,567,577.

Matsumura et al., 5,365,475, discloses in Fig. 15 a memory system comprising:

micro processor 104;

program memory 106 comprising a plurality of SRAM cells 2

as shown in Fig. 3, each of SRAM cells 2 comprising:

first transistor pair 21 and 23 coupled between voltage supply line 27 and GROUND 28;

second transistor pair 22 and 24 coupled between voltage supply line 27 and GROUND 28; voltage supply line 27 selectively connect to first supply voltage V1 in a first mode and connected to a second supply voltage V2 in a second mode;

first access transistor 256;

second access transistor 26;

What is not shown in Figs. 3 and 15 of Matsumura et al., 5,365,475, is the bias transistor as recited in claims 1-8 and 30-35 and the switching device as recited in claims 9-29 and 36-37.

Oliver, 4,567,577, discloses in Fig. 3 the teaching of using NMOS transistor 35 to GROUND the back body gate of the two transistors 25 and 27 of the SRAM cell (transistors 24, 25, 27 and 29) in response to the WRITE line 38 is inactive (see lines 4-6, column 3).

It would have been obvious under 35 USC 103(a) to one of ordinary skill in the art at the time of the invention was made to modify Figs. 3 and 15 of Matsumura et al., 5,365,475, by the teaching as taught in Fig. 2 of Oliver, 4,567,577, for the purpose of providing the body effect to during the Write state to prevent overdrive or overpower the previous state of the SRAM cell (see lines 14-20, column 3 of Oliver, 4,567,577).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Komatsuzaki, 6,707,702, Khellah et al., 6,724,648, Khellah et al., 6,985,380, Chappell et al., 6,556,471, Pelley, III et al., 5,726,944, and Chan et al., 5,706,226.

Response to Arguments

7. The final rejection of claims 1-34 under 35 USC 102(b) as being anticipated by Oliver, 4,567,577, set forth in the office action of 9/28/05 has been withdrawn in view of Applicant's amendment.

However, in reconsideration and in view of the newly discovered prior art of Matsumura et al., 5,365,475, a new non-final office action has been set forth as above.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRONG PHAN whose telephone number is (571) 272-1794. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AMIR ZARABIAN can be reached on (571)272-1852. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phan Trong

TRONG PHAN
PRIMARY EXAMINER